REMARKS

The Examiner objected to claims 5-8, 30 and 31.

The Examiner rejected claims 1-4 and 25-29 under 35 U.S.C. § 102(e) as allegedly being anticipated by Das (U.S. Patent No. 6,553,524).

Applicants respectfully traverse the § 102 rejections with the following arguments.

35 U.S.C. § 102(e)

The Examiner rejected claims 1-4 and 25-29 under 35 U.S.C. § 102(e) as allegedly being anticipated by Das (U.S. Patent No. 6,553,524).

Regarding claim 1, Applicants respectfully contend that Das does not anticipate claim 1, because Das does not teach each and every feature of claim 1. For example, Das does not teach "**identifying logic paths** from a target scan chain to at least one observation scan chain **until a pre-specified selection criterion is achieved**" of claim 1 (bold emphasis added).

More specifically, Das teaches (i) a first extraction procedure for validating the connectivity of test signals from the test signal output ports of a test control block (which is not a scan chain), such as TAP or MTAP, to the scan latches (block 220 of FIG. 5 and lines 37-43 of column 5), and (ii) a second extraction procedure for validating the inter-connectivity between the scan latches themselves (block 240 of FIG. 5 and lines 46-48 of column 5).

More specifically, with reference to FIG. 2 of Das, the first extraction procedure of (i) mentioned above validates the connectivity from the TAP and MINI TAPs 0-8 (which are not scan chains) to the scan latches of the SCAN PATHs 0-71, whereas the second extraction procedure of (ii) mentioned above validates the inter-connectivity between the scan latches within each of the SCAN PATHs 0-71. It should be noted that the first extraction procedure of (i) mentioned above is detailed in FIG. 6A of Das, whereas the second extraction procedure of (ii) mentioned above is detailed in FIG. 6B of Das.

As a result, as seen in FIG. 2 of Das, Das does not teach **any identification of any logic path** between a target scan chain and an observation scan chain of the SCAN PATHs 0-71 as claimed in claim 1, let alone that such identification is performed **until a pre-specified selection criterion is achieved** as claimed in claim 1.

Moreover, Das does not teach "**activating the identified logic paths** so as to capture the contents of associated target latches in the target scan chain into observation latches in at least one observation scan chain" of claim 1 (bold emphasis added). More specifically, because there is no identified logic path in Das as argued above, there is also no activation of the identified logic paths in Das as claimed in claim 1. In other words, Das does not teach the step cited above.

In addition, Das does not teach "**analyzing the contents of the observation latches** to determine defect ranges in the target scan chain" of claim 1 (bold emphasis added). More specifically, because there is no analysis of any content of any scan latch in Das, Das does not teach the step cited above. It should be noted that the traversals of different components in FIG. 2 of Das only involve identification of these components (see Das, lines 27-30 of column 7) and does not involve obtaining and analyzing contents of these components.

Based on the preceding arguments, Applicants respectfully maintain that Das does not anticipate claim 1, and that claim 1 is in condition for allowance.

Regarding claims 2-4, since claims 2-4 depend from claim 1, Applicants contend that claims 2-4 are likewise in condition for allowance.

In addition, regarding claim 3, Das does not teach "the step of identifying logic paths from the target scan chain to at least two observation scan chains" of claim 3. More specifically, as argued for claim 1 above, Das does not teach **any identification of any logic path** between a target scan chain and an observation scan chain of the SCAN PATHs 0-71, let alone that such logic path is from a target scan chain to at least two observation scan chains as claimed in claim 3. In other words, Das does not anticipate claim 3.

Regarding claim 25, Applicants respectfully contend that Das does not anticipate claim 25, because Das does not teach each and every feature of claim 25. For example, Das does not

teach "identifying **M target latches** in a target scan chain,...**N logic paths**,...and...**P observation latches**,... wherein each observation latch of the P observation latches is electrically coupled to at least one target latch of the M target latches via at least one logic path of the N logic paths" of claim 25 (bold emphasis added).

More specifically, as mentioned above, Das teaches (i) a first extraction procedure for validating the connectivity of test signals from the test signal output ports of a test control block (which is not a scan chain), such as TAP or MTAP, to the scan latches (block 220 of FIG. 5 and lines 37-43 of column 5), and (ii) a second extraction procedure for validating the inter-connectivity between the scan latches themselves (block 240 of FIG. 5 and lines 46-48 of column 5). In Das, there is no identification of **a target latch** and **an observation latch** electrically coupled the target latch via **a logic path** as claimed in claim 25.

Based on the preceding arguments, Applicants respectfully maintain that Das does not anticipate claim 25, and that claim 25 is in condition for allowance.

Regarding claims 26-29, since claims 26-29 depend from claim 25, Applicants contend that claims 26-29 are likewise in condition for allowance.

Moreover, regarding claim 27, Das does not teach "activating the N logic paths so as to capture contents of the M target latches in the target scan chain into the P observation latches" of claim 27. More specifically, FIG. 2 of Das does not show any logic paths that can be activated to capture contents of any target latches into any observation latches.

Moreover, regarding claim 28, Das does not teach "analyzing contents of the P observation latches to determine defect ranges in the target scan chain" of claim 28. More specifically, Das does not identify any observation latch, let alone that any content of any observation latch is analyzed as claimed in claim 28. It should be noted that the traversals of

different components in FIG. 2 of Das only involve identification of these components (see Das, lines 27-30 of column 7) and does not involve analyzing contents of these components. In contrast, claim 28 involves analyzing contents of observation latches.

Moreover, regarding claim 29, Das does not teach "two observation latches of the P observation latches reside on two different scan chains" of claim 29. More specifically, Das does not identify any observation latch, let alone that two observation latches reside on two different scan chains as claimed in claim 29.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0456.

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